



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Donald W. Underwood
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Applicants: Kevin D. Kaschke, Phillip G. Spaniol, and Steven J. Spaniol

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Entitled: Agricultural Bale Accumulator And Method Therefor

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Amendment and Response

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Responsive to the office action dated February 3, 2010 for the above-identified patent application, the applicant hereby submits the following amendment and response.

1. Application Status.
 - a. Under the present Non-Final Office Action, claims 61-103 are pending in the application.
 - b. Previously, claims 1-35 and 36-60 have been withdrawn from consideration, without prejudice.

2. Examiner's rejection.
 - a. Claims 61-103 are rejected under 35 USC 112, first paragraph, for failing to comply with the written description requirement.
 - b. Claims 61-103 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.
 - c. The drawings are objected to under 37 CFR 1.84.

3. Applicant's Response.

a. Regarding claims 61-103 rejected under 35 USC 112, first paragraph, for failing to comply with the written description requirement, the applicant provides the following response. The patent application supports the language in claims 61-103 in FIGS. 125-128 and the associated text on pages 100-111, for example. The following response also provides support for the amendment to the Abstract and the Title, which was amended in the applicant's last response. The underlined text below is for emphasis and example only.

1) In particular, the patent application supports the claimed "**anticipated time**" and "**anticipated location**" in FIG. 126, and the associated text on pages 100-108, for example, and more particularly, as follows, for example.

"The field location control method, as described in FIG. 1118, advantageously decides when and where to discharge the accumulated bales so that the operator does not have to decide." (page 107, lines 7-9) "Hence, the accumulator 100 now knows about how many complete bales are being accumulated per the distance traveled by the accumulator across the field 1135." (page 102, lines 10-12)

"At step 1124, a determination is made whether the present number of bales received and accumulated on the accumulator 100 is substantially equal to or less than a predetermined bale accumulating capacity of the accumulator 100." (Page 102, lines 13-15)

"Continuing at step 1133, a determination is made whether the accumulator 100 is located in (or has recently passed through) a bale discharge zone 1184 located in the field 1135 responsive to a determination of the location of the accumulator 100 in the field 1135." (page 102, lines 32-34)

"Hence, the accumulator 100, having its bale accumulating capacity filled up, now needs to decide when, where and how many bales to discharge from the accumulator 100 responsive to the location of the accumulator 100 in the field 1135 relative to the bale discharge zones 1184." (page 102, lines 36-38)

"Hence, the accumulator 100 is now calculating how much farther it must go before it can relieve its full capacity in the next bale discharge zone." (page 104, lines 35-36) "Hence, the accumulator 100 is now calculating how many more bales it will probably accumulate before it can relieve its full capacity bale discharge zone." (page 105, lines 3-5)

"At step 1173, the estimated future number of bales to be received and accumulated on the accumulator 100 are discharged from the load bed 113 to a ground surface 128 prior to reaching the next predetermined bale discharge zone 1184 as the accumulator 100 travels the remaining distance from the present location of the accumulator 100 in the field 1135 to the next predetermined bale discharge zone. After step 1174, the method continues by returning to step 1120 to receive and accumulate more bales on the accumulator 100. Hence, the accumulator 100 is now discharging the

estimated number of bales it will probably accumulate before it can relieve its full capacity bale discharge zone.” (page 105, lines 6-13)

“Hence, the accumulator 100, not having its bale accumulating capacity filled but now being located in a bale discharge zone, now needs to decide whether to discharge the bales that it has in the present bale discharge zone 1184 or whether it can make it to the next bale discharge zone 1184 before maximizing its bale accumulating capacity. The accumulator 100 is trying to avoid a situation where unsuspectingly passes up an opportunity to discharge the bales it has in a dump zone only to find itself filled to capacity far from the next bale discharge zone.” (page 105, 30-36)

“Hence, the accumulator 100 has determined how much farther it has to travel with only the determined number of open spaces available.” (page 106, 14-15) “Hence, the accumulator 100 uses its past calculated data to estimate how many more bales the accumulator 100 can expect to receive before reaching the next bale discharge zone.” (page 106, lines 20-22)

“At step 1131, a determination is made whether a future number of bales that the accumulator 100 can receive and accumulate before the accumulator 100 reaches the next predetermined bale discharge zone 1184 is greater than a remaining number of bales that the accumulator 100 can receive and accumulate before reaching the predetermined bale accumulating capacity of the accumulator 100. Hence, the accumulator 100 compare its determined number of open spaces available for additional bales to be received to its estimate of how many more bales the accumulator 100 can expect to receive before reaching the next bale discharge zone 1184 to determine if it has enough bale accumulating capacity available to accumulate the estimated number of bales it expects to receive.” (page 106, 23-31)

The above concepts cited in the specification, for example, generally relate to anticipation, expectation, prediction, estimation, determination, calculation, etc., for example, of when and where crop material, such as hay bale, for example, is accumulated on and discharged from the agricultural harvest equipment, such as a bale accumulator, for example, during the harvest of the crop material.

2) In particular, the patent application supports the claimed “**crop level information**” in FIG. 126, and the associated text on pages 100-108, for example, and more particularly, as follows, for example.

“Next, at step 1121, a present number of bales received and accumulated on the accumulator 100 is determined.” (page 102, lines 1-2)

“Hence, the accumulator 100 has determined the number of open spaces available for new bales to be received.” (page 106, lines 9-10)

“Hence, the accumulator 100 uses its past calculated data to estimate how many more bales the accumulator 100 can expect to receive before reaching the next bale discharge zone.” (page 106, lines 20-22)

The above concepts cited in the specification, for example, generally relate to a level, number, amount, count, volume, size, weight, value, etc., for example, of crop material, such as hay bales, for example, being harvested by agricultural harvest equipment, such as a bale accumulator, for example.

3) In particular, the patent application supports the claimed “**memory unit**” in FIGs. 126 and 128, and the associated text on pages 100-108 and 108-111, respectively, for example, and more particularly, as follows, for example.

“In typical global positioning satellite (GPS) farming systems, an operator maps out field parameters and boundaries in advance, then downloads the electronic map of the field 1135 into a control module carried with the agricultural equipment. In the preferred embodiment of the field location control module 1115, the operator of the accumulator 100 downloads the electronic map of the desired field 1135 into a memory unit, such as that provided with the controller 1154 shown in FIG. 128, associated with the accumulator 100. The operator manually creates the bale discharge zones 1184 on the electronic map either before or after the electronic map is downloaded into the memory unit.” (page 103, lines 3-11)

“Further, the controller 1154, implemented as an electrical embodiment, may reside on the accumulator 100, on a baler 101 or on a tractor, or partially on any of the three units. In the case of the controller 1154 being located remotely on the baler 101 or on the tractor, the accumulator would have an electrical interface, connected to the various sensors and control mechanisms, adapted for connection to the remotely located controller, via the baler interface module 1163 or the tractor interface module 1164. Whether the controller 1154 is located locally on the accumulator 100 or remotely on the baler 101 or tractor depends on whether the units are sold together or separately, sold by the same manufacturer, etc. The memory unit in the controller 1154, implemented electrically, stores all of the methods disclosed as flowcharts herein to control the accumulator 100 as disclosed herein.” (page 109, lines 25-32)

The above concepts cited in the specification, for example, generally relate to a memory unit and a controller, for example, for controlling the harvest of crop material, such as hay bales, for example, by agricultural harvest equipment, such as a bale accumulator, for example.

4) In particular, the patent application supports the claimed “**second agricultural machine**” in FIG. 126, and the associated text on pages 100-108, for example, and more particularly, as follows, for example.

“Preferably, the bale discharge zones 1184 correspond to convenient locations for the discharged bales to be retrieved by a loader for loading onto a semi trailer. Other considerations for determining the bale discharge zones 1184 may include, for example and without limitation, the contour of the field 1135, the length 1140 and the width 1142 and 1144 of the field 1135, a distance

1146 between bale discharge zones 1184, a path 1137 traveled by the accumulator 100, a distance 1138 between adjacent paths traversed by the accumulator indicating a distance between windrows, for example, starting 1148 and ending 1150 locations of the accumulator 100 in the field 1135, the number of loaders available for retrieving and loading the discharged bales, the shape of the perimeter of the field 1135, the bale accumulating capacity of the accumulator 100, the pulling capacity of the tractor pulling the baler in tandem with the accumulator 100, the location of public or private access roads 1180 adjacent to the field 1135, the location of a bale storage facility 1182 located adjacent to the field 1135, to name just a few. Moreover, the bale discharge zones 1184 may have, without limitation, any number of locations in the field 1135, any size or shape 1136, discrete or continuous patterns, and be located in any location in the field 1135, for example.” (page 103, lines 14-28)

“Hence, the accumulator 100, having its bale accumulating capacity filled up and being located in a predetermined bale discharge zone, discharges all of the accumulated bales for convenient retrieval by the loader.” (page 103, lines 35-38)

“This estimation is helpful for the accumulator 100 whether to discharge the bales one at a time or in stacks, for example, to provide a convenient arrangement for the loader to pick up. A preferred arrangement of bales discharged to the ground can significantly reduce the amount of time the loader needs to retrieve the partial discharge of bales.” (page 105, lines 13-16)

The above concepts cited in the specification, for example, generally relate to a second agricultural machine, such as a loader or a trailer, for example, for retrieving, receiving, transferring, etc., for example, crop material, such as hay bales, for example, being harvested by agricultural harvest equipment, such as a bale accumulator, for example, at an anticipated location (e.g., predetermined discharge zone) at an anticipated time (e.g., when the bale accumulator is full of bales).

b. Regarding claims 61-103 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention, the applicant provides the following response.

Claims 62, 63, 65, 66, 88, 89, and 103 have been amended to provide proper antecedent basis.

c. Regarding the drawings are objected to under 37 CFR 1.84, the applicant provides the following response.

- 1) The applicant resubmits a clean set of drawings, as previously filed on 10-11-2005.
- 2) The applicant resubmits 5 sheets of drawings with the word “annotated” exchanged for the word “replacement” at the top of each sheet.
- 3) The applicant submits that, in FIG. 2, numerals 176 and 178 are in the original informal drawings filed with the PCT. Please see the same numerals to the right and left of each load

bed extension module with lead lines extending to the bale position sensors on each load bed extension module.

4) The memory unit is shown, for example, in FIG. 128, referenced as “controller (with a memory unit) 1154.”

d. The applicant hereby deletes the “Summary” section added in the applicant’s last response.

4. The applicant respectfully submits that new claims describe an improved agricultural harvesting system. The applicants submit that the features of the claimed agricultural harvesting system and/or its associated advantages are not taught by, suggested by, or obvious in view of the references of record, either alone or in combination.

5. The applicant respectfully submits that no new matter has been added to the amended or new claims.

6. In view of the foregoing, Applicant submits that all pending claims are in condition for allowance. Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the phone number provided below.

7. The applicants submit herewith a petition under 37 CFR 1.136 for a three month extension of time with an associated fee. This request and amendment is filed on November 5, 2009, under the Certificate of Mailing pursuant to 37 CFR 1.18, within the three month shortened statutory period set for reply in the Non-Final rejection dated February 3, 2010, plus a three month extension of time under 37 CFR 1.136(a), which expires August 3, 2010, pursuant to MPEP 710.01(a).

8. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
Kaschke, et al.

Dated: August 2, 2010

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In the Summary

Please delete the “Summary” presented in the applicant’s most recent response dated Nov. 5, 2009.